IN THE CLAIMS

1. (Currently amended)   A method for establishing a <u>logical</u> point to point connection in a network <u>comprising a plurality of connected switching nodes, the method</u> comprising:

identifying an address for an egress node in the network <u>and a label value associated with that address</u>;

<u>at each switching node other than the egress node,</u> identifying a next hop <u>node</u> in the network for the <u>label value</u> ~~address~~;

~~associating a label value with the address;~~ and

<u>at intermediate switching nodes along a logical point to point connection within the network,</u> receiving data that includes the label value and then transferring the data to the next hop <u>node</u> for the ~~address-~~<u>label value</u>.

2. (Currently amended)   A method according to claim 1 including:

receiving the egress node address <u>and associated label value</u> during a layer 3 flooding stage;

identifying the next hop <u>node</u> by using a layer 3 protocol that identifies the shortest path to the egress node; and

~~receiving the data and~~ transferring the data to the identified next hop <u>node using</u> ~~during a~~ layer 2 <u>switching based on the label value</u> ~~point to point connection~~.

3. (Original)   A method according to claim 1 including transferring the data independently of any payload type for the data.

4. (Currently amended)   A method according to claim 3 wherein the payload type for the data comprises IP packets having IP destination addresses<u>, the method comprising</u> ~~and~~ forwarding the data to the next hop <u>node</u> without using the IP destination addresses.

5. (Currently amended)   A method according to claim 1 including receiving the address and the label <u>value together</u> via a flooding protocol.

6. (Original) A method according to claim 5 wherein the flooding protocol is an Interior Gateway Routing Protocol based on an Shortest Path First scheme.

7. (Original) A method according to claim 5 wherein the flooding protocol is an IP flooding protocol.

8. (Currently amended) A method according to claim 5 including using a Shortest Path First (SPF) protocol after the flooding protocol to identify the next hop node for the label value address.

9. (Original) A method according to claim 1 including maintaining a table that associates different label values with different egress node addresses.

10. (Currently amended) A method according to claim 1 including receiving the egress node address and the label value via a an Opaque Link-State Advertisement (LSA) packet.

11. (Original) A method according to claim 10 including providing multiple label values in the LSA packet for the same egress node address.

12. (Original) A method according to claim 1 including receiving a Quality of Service (QoS) value along with the label value.

13. (Original) A method according to claim 1 wherein the address is an IP address, the data is an Ethernet frame and the label value is a VLAN Id value.

14. (Original) A method according to claim 1 wherein the address is an IP address, the data is an Ethernet frame and the label value is a MPLS label.

15. (Original) A method according to claim 1 including maintaining a table that associates different label values with different egress node addresses.

Claims 16-23 are cancelled.

24. (Original) A metropolitan area network, comprising:

an egress node having a layer 3 address;

intermediate nodes that use the layer 3 address to identify next hops for transferring an Ethernet frame to the egress node; and

an ingress node that establishes a layer 2 logical point-to-point connection through the intermediate nodes to the egress node by assigning a label to the Ethernet frames that the intermediate nodes associate with the identified next hops along the point-to-point connection.

25. (Original) A metropolitan area network according to claim 24 including tables in the intermediate nodes that index the next hops using the label assigned to the Ethernet frame.

26. (Original) A metropolitan area network according to claim 24 wherein the ingress node is part of an Internet Service Provider network.

27. (Original) A metropolitan area network according to claim 24 wherein the label is a VLAN Id.

28. (Original) A metropolitan area network according to claim 24 wherein the label is a MPLS label.

29. (Original) A metropolitan area network according to claim 24 wherein the egress node uses a layer 3 flooding protocol to transmit the layer 3 address to the intermediate nodes and the intermediate nodes then use a layer 3 route identification protocol to determine the next hops.

30. (Currently amended)   A metropolitan area network according to claim 24 wherein the egress node sends a~~ ~~an Opaque Link-State Advertisement (LSA) packet to the intermediate nodes that contain the egress node address and the label associated with the egress node address.

31. (Original) The network according to claim 24 wherein the label includes a Quality of Service value.

32. (Original) A metropolitan area network according to claim 24 including:

multiple ingress nodes that are configured to assign a same label value to the Ethernet frames received over ingress connections; and

intermediate nodes that establish different point to point connections from the multiple ingress nodes to the egress node by identifying the next hops for the Ethernet frames according to the same label value.

33.   (Original)   A metropolitan area network according to claim 32 wherein the intermediate nodes forward the Ethernet frames according to the label value independently of ingress input ports on the intermediate nodes receiving the Ethernet frames.